

Chapter Six

Economic Impacts of Options Proposed to Alleviate the Problems Confronting the U.S. Shrimp Fishery

6.1 Introduction

After considerable consultation among representatives of industry, the academic community, NOAA officials, and other experts on the U.S. shrimp fishery, several solutions to help alleviate the problems facing the fishery have been developed. These options, which are discussed in detail in other sections of this report, include the following: (1) a permit/license moratorium, which also includes open access; (2) a government-sponsored buyback program; (3) an ex-vessel price support program; (4) a marketing program financed by a tax on ex-vessel revenues; (5) creation of a cooperative to increase profitability; (6) a fractional license program; and (7) an operating loan with a required payback. In addition, some of the options can be jointly implemented. As discussed in an earlier section of this report, an operating loan was not considered to be a viable option and we do not further consider it as an appropriate method to alleviate the problems confronting the fishery.

It would be expected that each of the options would have ramifications for the region and the larger, U.S. economy. For example, if a price support program enhanced ex-vessel revenues, it would be anticipated that more economic activity would be generated (e.g., captains and crew might purchase new homes which, in turn, would generate more jobs for the construction industry). In this section of the report, we provide a summary of the potential impacts of a fractional license program, a cooperative to enhance profitability, and a marketing program to increase ex-vessel price. These three options were selected because they are thought to be the most feasible and acceptable; analyses of the other options are contained in a technical appendix, which provides a summary of the potential impacts of each.

Results of analyses of the potential economic impacts are restricted to the potential gains and losses in economic activity. That is, emphasis is placed on economic impacts and not on economic value or net benefits to society. These two measures are not equivalent. An economic impact is a measure of economic activity, and is typically measured in terms of total output or sales, income or valued added, and full-time employment opportunities. Economic value is a measure of the net worth or net benefit to individuals or society of a good or service; economic value is typically measured in terms of net benefits or the sum of producer and consumer surplus.¹

¹Edwards (1990) provides a detailed explanation of the difference between economic impact and economic value, as well as a detailed discussion on consumer and producer surplus.

6.2 Methodology and Data for Assessing the Potential Economic Impacts

Input/Output Modeling: For the purpose of assessing the potential economic impacts of the various adjustment options, we develop an input/output (I/O) model of the domestic shrimp fishery. The model provides a framework for estimating the potential economic activity associated with the different options. The I/O model uses landings and revenues generated from Griffin's shrimp model. The I/O model, however, is only a partial model in that it restricts the assessment of the potential impacts to the harvesting and processing/distributing sectors. The retail sector is omitted from the model because information necessary to develop a model of the retail sector is unavailable.

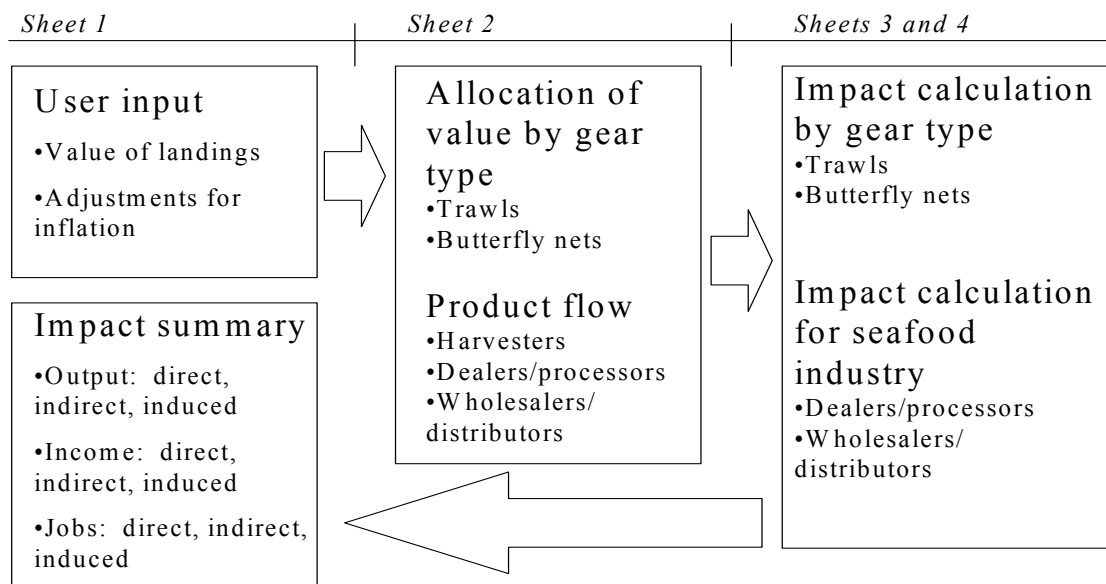
An I/O model is a mathematical model that describes the economic links between different economic activities, sectors, or industries (e.g., the number of jobs generated by consumers purchasing \$1 million worth of automobiles). The model captures all monetary transactions for consumption in a given time period. Using information on the monetary transactions and linkages, various mathematical relationships are developed, which are then used to examine the effects of changes in one or more economic activities on an entire economy (e.g., the total income generated for the economy of the United States from harvesting shrimp). The impacts are estimated through a series of economic multipliers, which relate the total economic activity to a specified activity (e.g., total output or sales in an economy generated by commercial harvesting activities). The multipliers are used to describe what is often referred to as the "ripple effect."

Input-output analysis uses a wide variety of multipliers to determine the levels of economic activity generated throughout an economy. There are four basic multipliers: (1) Type I, (2) Type II, (3) Type III, and (4) Type SAM. The type of multiplier is related to the level of impacts being considered. There are three basic types of effects considered via I/O models: (1) direct effect, (2) indirect effect, and (3) induced effect. Direct effects represent the economic activity generated within a sector or industry. Alternatively, direct effects represent the expenditures needed by the producing sector to satisfy a change in final consumer demand. Indirect effects represent the economic activity generated as the demand for intermediate inputs changes (e.g., providers of fishing gear have to purchase gear from gear producers who, in turn, must acquire inputs to produce the gear). Induced effects represent the economic activity generated from households spending their income (e.g., a commercial fisherman receives income from fishing, but then uses that income to acquire groceries and housing which, in turn, generates income for individuals employed in grocery stores and construction). The Type I multiplier equals the sum of the multipliers for the direct and indirect effects. The Type II multiplier also equals the sum of the multipliers for the direct and indirect effects, but also considers the income and expenditures of households. The Type SAM multiplier equals the sum of the multipliers for the direct, indirect, and induced effects. The Type III multiplier is similar to the SAM multiplier, but uses a different multiplier to reflect the induced effects. In this report, we employ the more commonly used SAM multiplier to assess the potential economic ramifications of the various options designed to assist the shrimp fishery.

Impacts estimated from input/output models are limited, however. It is common to use I/O to estimate potential losses if economic activity of an industry declines, but such estimates are extremely limited and, really, only applicable to the very short term. Alternatively, I/O models and the associated impact estimates are not symmetrical; they are asymmetrical. That is, these models are useful for predicting economic activity generated from new economic activity; they are not particularly useful for predicting changes in economic activity associated with declines in existing economic activity. This is simply because we would anticipate that labor declines associated with a reduction in economic activity in one industry would be offset by that labor group obtaining employment in another industry or sector of the economy.

Model Development: Model development was based on the IMPLAN Pro input/output software. IMPLAN permits routine analysis of potential economic impacts or economic activity generated within an economy. It is structured to permit an assessment of 528 U.S. industries or industries corresponding to the Standard Industrial Code (SIC). It also can be used to estimate the impacts of more aggregate industries or structured to permit a more detailed analysis of one sector (e.g., commercial fishing and processing). For the purpose of analyzing potential economic impacts of the various assistance options, we developed a custom model of the commercial shrimp fishery and the processing, wholesaling, and distributing sectors (Figure 6-1). Although based on information available from IMPLAN, the custom model was constructed in MS Excel. The model only requires the user to enter the value of landings; after that, adjustments are made for inflation and dollar values are converted to constant dollar values. Next, the model allocates revenues by gear type. Last, it estimates economic impacts in terms of total sales or output, income, and full-time employment opportunities. All impacts are calculated relative to the entire United States.

Shrimp I/O Model



Data necessary for model construction were derived from numerous sources. Costs and earnings information was obtained from Mike Haby, Wade Griffin, and John Ward (personal communication). Wholesaler and processor information was obtained from a New York Sea Grant Study, Walter Keithly of Louisiana State University, and NOAA's processed products data file. Although detailed data were available for the trawl fishery, similar data for the butterfly net fishery were not available. Instead, data for inshore, multi-species fisheries from a project completed for New York Sea Grant was used for butterfly nets. This introduces an unknown uncertainty into the estimates. Butterfly nets accounted for 11.3% of the total landed value of domestic shrimp in 2001.

6.3 The Proposed Options and Impacts

Options Considered: Although seven options were developed to help alleviate the problems confronting the industry, we present in the main body of this report the potential impacts of only three of the options. The three options considered are as follows: (1) a fractional license program; (2) creation of cooperatives to enhance profitability; and (3) a marketing program. Analysis of all options was done with respect to the status quo for year 2002. In addition, potential economic impacts associated with the status quo (i.e., no new options to address the problems) were estimated; this is referred to as the baseline. The baseline represents the potential landings, ex-vessel revenues, and economic impacts if nothing is done to improve the situation. Dollar values (sales and income) impacts are reported in terms of year 2003 constant dollar value; the gross national product implicit price deflator was used to convert nominal dollar values to year 2003 values. The estimated impacts pertain only to the Gulf of Mexico and South Atlantic shrimp fisheries. Results of analyses of the other options are presented in an appendix to this report.

Although all the options are analyzed with a custom model for shrimp, it is likely that the results, particularly pertaining to options that might encourage exit from the fishery, are highly uncertain. This is because as the fleet size is reduced, the expenditures by fishing operators would likely decline, but earnings or income for fishermen and vessel owners would increase. Such an analysis would require a new or modified model for every level of change. We would anticipate reduced economic activity because of a reduction in fleet expenditures but increased economic activity because of increased income and earnings. In the absence of appropriate information, we cannot estimate whether or not the reduced expenditures would be offset by the increased income. Given that induced effects, however, typically generate much higher economic activity than do direct expenditures on harvesting, it is likely that overall economic activity would increase as vessel expenditures decrease and income or earnings increase.

The Baseline: The baseline analysis assumes that free market forces and decision-making behavior by vessel owners determine the potential economic ramifications. Alternatively, no new programs to address the problems facing the fishery are implemented. Under this option (i.e., the baseline), revenues are projected to decrease until 2011 (Table 6-1). Starting in 2012, revenues are projected to increase and continue increasing through 2021.

The baseline indicates an ex-vessel value of \$391.2 million (2003 constant dollar value) for 2002. The total sales generated for the U.S. economy from the \$391.2 million ex-vessel value equaled \$1.4 billion; total employment generated equaled 11.6 thousand individuals; and total income for the baseline in 2002 equaled \$475.4 million. By 2021, total sales generated from harvesting shrimp are predicted to decline to \$1.36 billion. Income is projected to decline to \$457.9 million; employment is projected to decline to 11.1 thousand individuals (full-time equivalent units of employment).

Fractional License Program: Six options were considered for the fractional license program. These options are as follows: (1) buy 10% and have one large market for large vessels; (2) buy 30% of the fleet and have one market for large vessels; (3) purchase 50% and have one market for large vessels; (4) buy 10%, but have five markets for small vessels and one market for large vessels; (5) purchase 30%, but have five markets for small vessels and one market for large vessels; and (6) purchase 50%, but have five markets for small vessels and one market for large vessels. Because of data limitations, however, it was only possible to estimate the economic impacts of the Gulf of Mexico shrimp fishery.

Under the various fractional license options, revenues and associated economic impacts (sales, income, and full-time employment opportunities) are projected to decline between 2002 and 2021 (Tables 6-2 through 6-7). Depending upon the specific license program, however, ex-vessel revenues and associated economic activity start to increase in either 2006 or 2010. The baseline revenues and economic activity generated from the fishery in 2002 remain higher than all associated activity between 2003 and 2021.

To avoid possible misinterpretation of the results, we note that although revenues and economic activity are reduced between 2003 and 2021, relative to the 2002 baseline, profits for the vessels and fleet are higher. Relative to the six options, the two options of buying 10% and having either only one market for large vessels or five markets for small vessels and one market for large vessels generates the highest revenue stream and economic activity. This is not surprising because the other four options remove considerably more vessels, which would reduce overall landings, revenues, and economic activity generated from shrimp harvesting activities. We stress again, however, that profitability for the remaining vessels and for the fleet would be greater with higher levels of reduction in the size of the fleet.

Cooperatives to Enhance Profitability: The creation of a cooperative (Co-op) is proposed as one option for alleviating the financial problems confronting the industry. The objective of the cooperative would be to maximize profits of the Co-op. The cooperative would operate similarly to a monopolist or large corporation. That is, the Co-op would operate as the firm, having numerous plants or vessels, rather than individual vessels operating as individual firms. The objective would be to maximize profit of the fleet and not of each individual vessel. The maximization of profits, however, would require a substantial reduction in fleet size. Previous analysis presented in this report suggests that the fleet size needs to be reduced between 25 and 35%.

Two options are considered relative to creating a Co-op for the purpose of enhancing fleet profitability: (1) a reduction in the number of large vessels, and (2) a reduction in the number of both small and large vessels. The estimation of impacts assumes year 2002 ex-vessel prices; analysis of the impacts based on year 2000 ex-vessel prices is presented in an appendix.

A reduction in the number of large vessels and use of a Co-op results in nearly immediate gains in total sales, income, and full-time employment opportunities (Table 6-8). Sales, income, and full-time employment opportunities increase from, respectively, \$680.4 million, \$229.6 million, and 5,586 individuals in 2002 to \$912.2 million, \$307.9 million, and 7,489 individuals in 2021. A reduction in the number of both large and small vessels, however, yields even higher profits and larger levels of total sales, income, and full-time employment opportunities (Table 6-9). Under this scenario, sales, income, and employment increase from, respectively, \$191 million, \$64.5 million, and 1,568 individuals in 2002 to \$1.1 billion, \$372.6 million, and 9,065 individuals in 2021.

Marketing Program: A remaining option that was identified as having potential for success was a formal marketing program. Under the proposed program, harvesters would pay \$0.01 on each pound of shrimp landed, and the proceeds would be used to support a marketing program that would increase the price of shrimp. In the analysis of the proposed marketing program, we also consider the imposition of a moratorium on both large and small vessels, and assume the marketing program will increase the ex-vessel price by 5, 10, 15, and 20%. The baseline reference and subsequent analyses of the marketing program use 2002 ex-vessel prices; the analyses relative to 2000 ex-vessel prices are contained in an appendix. Initially, the potential impacts of a marketing program with no permit or license moratorium restrictions are examined (Tables 6-10 through 6-13). Next, the potential economic impacts of a marketing program with permit and license moratorium restrictions on both large and small vessels are presented (Tables 6-14 through 6-17).

In terms of 2003 constant dollar values, ex-vessel revenues are projected to increase from \$391.2 million to \$400 million between 2002 and 2021, provided the ex-vessel prices increase by 5% and there are no permit or license restrictions (Table 6-10). Under this scenario, total sales in the U.S. economy increase from \$1.41 billion in 2002 to \$1.44 billion in 2021. Income increases from \$475.4 million to \$486.1 million, and employment increases from 11,565 to 11,824 individuals. At 10, 15, and 20% increases

in ex-vessel prices and no permit or license moratorium restrictions in place, ex-vessel revenues and the associated changes in total sales, income, and employment are higher (Tables 6-11 through 6-13).

In contrast to the situation of no permit or license moratorium restrictions, the gains from a marketing program relative to ex-vessel revenues, sales, income, and employment tend to be reduced under a permit or license moratorium program. For example, with no license moratorium restrictions and allowing the ex-vessel price to increase by 5%, ex-vessel revenues increase from \$391.2 million (2003 constant dollar values) in 2002 to \$400 million in 2021. With restrictions on licenses or permits and assuming that ex-vessel prices increase by 5%, ex-vessel revenues decline from \$391.2 million in 2002 to \$373.5 million in 2021 (Table 6-14). This decline, however, is also accompanied by gains in profits, which are generated because of the license restrictions. For price increases of 10, 15, and 20% and license restrictions, however, ex-vessel revenues, sales, income, and full-time employment opportunities are projected to increase relative to 2002 levels (Tables 6-15 through 6-17). For example, ex-vessel revenues, given a 20% increase in price and license restrictions, are projected to increase from \$391.2 million in 2002 to \$443.5 million in 2021; total sales, income, and full-time employment are projected to increase, respectively, from \$1.41 billion, \$475.4 million, and 11,565 individuals in 2002, to \$1.6 billion, \$538.9 million, and 13,109 individuals.

Table 6-1. Baseline Economic Impacts, 2002-2021^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	391,241	823,356	266,813	6,392	585,401	208,611	5,174	1,408,757	475,424	11,565
2003	382,600	805,170	260,920	6,251	572,471	204,003	5,059	1,377,641	464,923	11,310
2004	378,026	795,546	257,801	6,176	565,628	201,565	4,999	1,361,174	459,366	11,175
2005	374,491	788,106	255,390	6,118	560,338	199,680	4,952	1,348,444	455,070	11,070
2006	371,381	781,560	253,269	6,067	555,685	198,021	4,911	1,337,245	451,290	10,978
2007	368,548	775,598	251,336	6,021	551,445	196,511	4,873	1,327,043	447,847	10,895
2008	365,912	770,052	249,539	5,978	547,502	195,105	4,839	1,317,553	444,645	10,817
2009	364,113	766,265	248,312	5,949	544,810	194,146	4,815	1,311,075	442,458	10,763
2010	363,131	764,199	247,643	5,933	543,341	193,623	4,802	1,307,539	441,265	10,734
2011	363,079	764,090	247,607	5,932	543,263	193,595	4,801	1,307,353	441,202	10,733
2012	363,702	765,400	248,032	5,942	544,195	193,927	4,809	1,309,595	441,959	10,751
2013	364,730	767,564	248,733	5,959	545,733	194,475	4,823	1,313,297	443,208	10,782
2014	365,985	770,205	249,589	5,979	547,611	195,144	4,840	1,317,815	444,733	10,819
2015	367,393	773,167	250,549	6,002	549,717	195,895	4,858	1,322,884	446,444	10,860
2016	368,887	776,311	251,568	6,027	551,953	196,692	4,878	1,328,264	448,259	10,905
2017	370,446	779,593	252,631	6,052	554,286	197,523	4,899	1,333,878	450,154	10,951
2018	371,944	782,746	253,653	6,077	556,528	198,322	4,918	1,339,273	451,975	10,995
2019	373,528	786,078	254,733	6,102	558,897	199,166	4,939	1,344,975	453,899	11,042
2020	375,169	789,532	255,852	6,129	561,352	200,041	4,961	1,350,884	455,893	11,090
2021	376,788	792,939	256,956	6,156	563,775	200,904	4,982	1,356,714	457,860	11,138

^aAll dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-2. Economic Impacts of Fractional License Program (Buy 10% and have one market for large vessels)^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	335,718	706,510	228,948	5,485	502,324	179,006	4,439	1,208,834	407,954	9,924
2003	328,442	691,197	223,986	5,366	491,437	175,126	4,343	1,182,633	399,112	9,709
2004	325,167	684,304	221,752	5,312	486,536	173,380	4,300	1,170,840	395,132	9,612
2005	319,567	672,520	217,934	5,221	478,157	170,394	4,226	1,150,677	388,328	9,447
2006	316,458	665,977	215,813	5,170	473,506	168,736	4,185	1,139,483	384,550	9,355
2007	313,549	659,855	213,829	5,123	469,153	167,185	4,146	1,129,008	381,015	9,269
2008	311,159	654,825	212,199	5,084	465,576	165,911	4,115	1,120,401	378,110	9,198
2009	310,340	653,101	211,641	5,070	464,351	165,474	4,104		377,115	9,174
2010	310,904	654,289	212,026	5,079	465,196	165,775	4,111	1,119,485	377,801	9,191
2011	311,452	655,441	212,399	5,088	466,015	166,067	4,118	1,121,456	378,466	9,207
2012	311,699	655,961	212,568	5,092	466,384	166,199	4,122	1,122,345	378,766	9,214
2013	311,889	656,360	212,697	5,095	466,668	166,300	4,124	1,123,029	378,997	9,220
2014	312,088	656,781	212,833	5,099	466,967	166,406	4,127	1,123,748	379,240	9,226
2015	312,278	657,181	212,963	5,102	467,251	166,508	4,129	1,124,432	379,471	9,231
2016	312,461	657,565	213,087	5,105	467,524	166,605	4,132	1,125,089	379,692	9,237
2017	312,633	657,928	213,205	5,108	467,783	166,697	4,134	1,125,710	379,902	9,242
2018	312,798	658,275	213,317	5,110	468,029	166,785	4,136	1,126,304	380,102	9,247
2019	312,956	658,607	213,425	5,113	468,265	166,869	4,138	1,126,872	380,294	9,251
2020	313,109	658,928	213,529	5,115	468,494	166,950	4,140	1,127,422	380,479	9,256
2021	313,253	659,231	213,627	5,118	468,709	167,027	4,142	1,127,940	380,654	9,260

^a All dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-3. Economic Impacts of Fractional License Program (Buy 30% and have one market for large vessels) ^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	335,718	706,510	228,948	5,485	502,324	179,006	4,439	1,208,834	407,954	9,924
2003	328,442	691,197	223,986	5,366	491,437	175,126	4,343	1,182,633	399,112	9,709
2004	325,167	684,304	221,752	5,312	486,536	173,380	4,300	1,170,840	395,132	9,612
2005	288,960	608,108	197,060	4,721	432,361	154,074	3,821	1,040,468	351,135	8,542
2006	294,229	619,197	200,654	4,807	440,245	156,884	3,891	1,059,443	357,538	8,698
2007	296,003	622,929	201,864	4,836	442,899	157,830	3,914	1,065,829	359,693	8,750
2008	296,300	623,554	202,066	4,841	443,343	157,988	3,918	1,066,897	360,054	8,759
2009	296,475	623,922	202,185	4,844	443,605	158,081	3,920	1,067,527	360,266	8,764
2010	296,658	624,308	202,310	4,847	443,880	158,179	3,923	1,068,188	360,489	8,769
2011	296,833	624,677	202,430	4,849	444,141	158,272	3,925	1,068,818	360,702	8,775
2012	297,001	625,029	202,544	4,852	444,392	158,362	3,927	1,069,421	360,906	8,780
2013	297,160	625,364	202,652	4,855	444,630	158,446	3,929	1,069,993	361,099	8,784
2014	297,312	625,685	202,756	4,857	444,858	158,528	3,931	1,070,543	361,284	8,789
2015	297,460	625,996	202,857	4,860	445,079	158,607	3,933	1,071,075	361,464	8,793
2016	297,601	626,293	202,954	4,862	445,291	158,682	3,935	1,071,584	361,636	8,797
2017	297,738	626,581	203,047	4,864	445,495	158,755	3,937	1,072,076	361,802	8,801
2018	297,869	626,858	203,136	4,866	445,692	158,825	3,939	1,072,550	361,961	8,805
2019	297,997	627,127	203,224	4,869	445,883	158,893	3,941	1,073,010	362,117	8,809
2020	298,121	627,388	203,308	4,871	446,069	158,959	3,942	1,073,457	362,268	8,813
2021	298,227	627,610	203,380	4,872	446,227	159,015	3,944	1,073,837	362,396	8,816

^a All dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-4. Economic Impacts of Fractional License Program (Buy 50% and have one market for large vessels)^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	335,718	706,510	228,948	5,485	502,324	179,006	4,439	1,208,834	407,954	9,924
2003	328,442	691,197	223,986	5,366	491,437	175,126	4,343	1,182,633	399,112	9,709
2004	325,167	684,304	221,752	5,312	486,536	173,380	4,300	1,170,840	395,132	9,612
2005	246,977	519,756	168,430	4,035	369,543	131,689	3,266	889,299	300,118	7,301
2006	262,655	552,750	179,122	4,291	393,002	140,049	3,473	945,753	319,170	7,764
2007	263,142	553,774	179,453	4,299	393,730	140,308	3,480	947,504	319,761	7,779
2008	263,322	554,153	179,576	4,302	393,999	140,404	3,482	948,152	319,980	7,784
2009	263,484	554,495	179,687	4,305	394,243	140,491	3,484	948,738	320,178	7,789
2010	263,635	554,811	179,789	4,307	394,467	140,571	3,486	949,279	320,360	7,793
2011	263,788	555,135	179,894	4,310	394,698	140,653	3,488	949,833	320,547	7,798
2012	263,937	555,448	179,996	4,312	394,920	140,732	3,490	950,369	320,728	7,802
2013	264,084	555,757	180,096	4,314	395,140	140,810	3,492	950,896	320,906	7,807
2014	264,225	556,054	180,192	4,317	395,351	140,886	3,494	951,406	321,078	7,811
2015	264,367	556,352	180,289	4,319	395,563	140,961	3,496	951,915	321,250	7,815
2016	264,500	556,632	180,379	4,321	395,762	141,032	3,498	952,393	321,411	7,819
2017	264,634	556,914	180,471	4,323	395,962	141,103	3,499	952,876	321,574	7,823
2018	264,765	557,191	180,561	4,326	396,159	141,174	3,501	953,350	321,734	7,827
2019	264,881	557,433	180,639	4,327	396,332	141,235	3,503	953,765	321,874	7,830
2020	265,005	557,695	180,724	4,329	396,517	141,301	3,504	954,212	322,025	7,834
2021	265,128	557,953	180,808	4,332	396,701	141,367	3,506	954,654	322,174	7,837

^aAll dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-5. Economic Impacts of Fractional License Program (Buy 10% and have five markets for small vessels and one market for large vessels)^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	335,718	706,510	228,948	5,485	502,324	179,006	4,439	1,208,834	407,954	9,924
2003	328,442	691,197	223,986	5,366	491,437	175,126	4,343	1,182,633	399,112	9,709
2004	325,167	684,304	221,752	5,312	486,536	173,380	4,300	1,170,840	395,132	9,612
2005	319,567	672,520	217,934	5,221	478,157	170,394	4,226	1,150,677	388,328	9,447
2006	316,458	665,977	215,813	5,170	473,506	168,736	4,185	1,139,483	384,550	9,355
2007	313,549	659,855	213,829	5,123	469,153	167,185	4,146	1,129,008	381,015	9,269
2008	311,159	654,825	212,199	5,084	465,576	165,911	4,115	1,120,401	378,110	9,198
2009	310,340	653,101	211,641	5,070	464,351	165,474	4,104	1,117,452	377,115	9,174
2010	310,904	654,289	212,026	5,079	465,196	165,775	4,111	1,119,485	377,801	9,191
2011	311,452	655,441	212,399	5,088	466,015	166,067	4,118	1,121,456	378,466	9,207
2012	311,699	655,961	212,568	5,092	466,384	166,199	4,122	1,122,345	378,766	9,214
2013	311,889	656,360	212,697	5,095	466,668	166,300	4,124	1,123,029	378,997	9,220
2014	312,088	656,781	212,833	5,099	466,967	166,406	4,127	1,123,748	379,240	9,226
2015	312,278	657,181	212,963	5,102	467,251	166,508	4,129	1,124,432	379,471	9,231
2016	312,461	657,565	213,087	5,105	467,524	166,605	4,132	1,125,089	379,692	9,237
2017	312,633	657,928	213,205	5,108	467,783	166,697	4,134	1,125,710	379,902	9,242
2018	312,798	658,275	213,317	5,110	468,029	166,785	4,136	1,126,304	380,102	9,247
2019	312,956	658,607	213,425	5,113	468,265	166,869	4,138	1,126,872	380,294	9,251
2020	313,109	658,928	213,529	5,115	468,494	166,950	4,140	1,127,422	380,479	9,256
2021	313,253	659,231	213,627	5,118	468,709	167,027	4,142	1,127,940	380,654	9,260

^aAll dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-6. Economic Impacts of Fractional License Program (Buy 30% and have five markets for small vessels and one market for large vessels)^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	335,718	706,510	228,948	5,485	502,324	179,006	4,439	1,208,834	407,954	9,924
2003	328,442	691,197	223,986	5,366	491,437	175,126	4,343	1,182,633	399,112	9,709
2004	325,167	684,304	221,752	5,312	486,536	173,380	4,300	1,170,840	395,132	9,612
2005	289,228	608,672	197,243	4,725	432,762	154,217	3,825	1,041,434	351,460	8,550
2006	295,293	621,436	201,379	4,824	441,837	157,451	3,905	1,063,272	358,831	8,729
2007	296,990	625,006	202,536	4,852	444,375	158,356	3,927	1,069,381	360,892	8,779
2008	297,240	625,533	202,707	4,856	444,750	158,489	3,931	1,070,284	361,197	8,787
2009	297,383	625,834	202,805	4,858	444,964	158,565	3,932	1,070,798	361,370	8,791
2010	297,537	626,158	202,910	4,861	445,194	158,648	3,934	1,071,352	361,557	8,795
2011	297,686	626,471	203,011	4,863	445,417	158,727	3,936	1,071,888	361,738	8,800
2012	297,829	626,771	203,109	4,866	445,631	158,803	3,938	1,072,402	361,912	8,804
2013	297,965	627,059	203,202	4,868	445,835	158,876	3,940	1,072,894	362,077	8,808
2014	298,098	627,338	203,292	4,870	446,034	158,947	3,942	1,073,372	362,239	8,812
2015	298,226	627,607	203,379	4,872	446,225	159,015	3,944	1,073,832	362,394	8,816
2016	298,351	627,871	203,465	4,874	446,412	159,082	3,945	1,074,283	362,547	8,819
2017	298,471	628,124	203,547	4,876	446,593	159,146	3,947	1,074,717	362,693	8,823
2018	298,588	628,370	203,627	4,878	446,767	159,208	3,948	1,075,137	362,835	8,827
2019	298,687	628,579	203,694	4,880	446,916	159,261	3,950	1,075,494	362,955	8,829
2020	298,799	628,814	203,770	4,882	447,083	159,321	3,951	1,075,897	363,091	8,833
2021	298,908	629,044	203,845	4,883	447,246	159,379	3,953	1,076,290	363,224	8,836

^aAll dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-7. Economic Impacts of Fractional License Program (Buy 50% and have five markets for small vessels and one market for large vessels)^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	335,718	706,510	228,948	5,485	502,324	179,006	4,439	1,208,834	407,954	9,924
2003	328,442	691,197	223,986	5,366	491,437	175,126	4,343	1,182,633	399,112	9,709
2004	325,167	684,304	221,752	5,312	486,536	173,380	4,300	1,170,840	395,132	9,612
2005	243,699	512,858	166,194	3,981	364,639	129,941	3,223	877,497	296,135	7,204
2006	261,554	550,434	178,371	4,273	391,355	139,462	3,459	941,789	317,833	7,732
2007	261,892	551,144	178,601	4,279	391,860	139,642	3,463	943,004	318,243	7,742
2008	261,980	551,330	178,661	4,280	391,992	139,689	3,464	943,322	318,350	7,744
2009	262,061	551,499	178,716	4,281	392,113	139,732	3,465	943,612	318,448	7,747
2010	262,142	551,669	178,771	4,283	392,233	139,775	3,466	943,903	318,546	7,749
2011	262,225	551,844	178,828	4,284	392,358	139,819	3,467	944,202	318,647	7,752
2012	262,310	552,024	178,886	4,285	392,486	139,865	3,469	944,510	318,751	7,754
2013	262,397	552,207	178,946	4,287	392,616	139,911	3,470	944,823	318,857	7,757
2014	262,487	552,395	179,007	4,288	392,750	139,959	3,471	945,145	318,965	7,759
2015	262,577	552,586	179,068	4,290	392,885	140,007	3,472	945,471	319,075	7,762
2016	262,671	552,784	179,133	4,291	393,026	140,057	3,473	945,811	319,190	7,765
2017	262,766	552,983	179,197	4,293	393,167	140,107	3,475	946,150	319,304	7,768
2018	262,863	553,187	179,263	4,295	393,312	140,159	3,476	946,499	319,422	7,770
2019	262,962	553,396	179,331	4,296	393,461	140,212	3,477	946,856	319,543	7,773
2020	263,056	553,594	179,395	4,298	393,602	140,262	3,478	947,196	319,657	7,776
2021	263,158	553,808	179,464	4,299	393,754	140,317	3,480	947,563	319,781	7,779

^aAll dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-8. Economic Impacts of Cooperative to Enhance Profits and a Reduction in the Number of Large Vessels^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	188,951	397,642	128,858	3,087	282,721	100,749	2,499	680,363	229,607	5,586
2003	231,625	487,448	157,960	3,784	346,573	123,503	3,063	834,021	281,463	6,847
2004	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2005	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2006	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2007	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2008	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2009	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2010	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2011	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2012	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2013	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2014	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2015	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2016	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2017	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2018	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2019	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2020	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489
2021	253,340	533,147	172,769	4,139	379,064	135,082	3,350	912,211	307,851	7,489

^a All dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-9. Economic Impacts of Cooperative to Enhance Profits and a Reduction in the Number of Large and Small Vessels^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	53,040	111,621	36,172	867	79,362	28,281	701	190,984	64,453	1,568
2003	127,329	267,959	86,834	2,080	190,517	67,892	1,684	458,477	154,726	3,764
2004	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2005	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2006	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2007	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2008	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2009	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2010	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2011	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2012	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2013	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2014	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2015	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2016	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2017	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2018	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2019	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2020	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065
2021	306,655	645,346	209,128	5,010	458,837	163,509	4,055	1,104,183	372,637	9,065

^a All dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-10. Potential Economic Impacts of Marketing Program, a 5% Increase in Price, and No License Restrictions^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	391,241	823,356	266,813	6,392	585,401	208,611	5,174	1,408,757	475,424	11,565
2003	382,600	805,170	260,920	6,251	572,471	204,003	5,059	1,377,641	464,923	11,310
2004	396,927	835,322	270,690	6,485	593,909	211,643	5,249	1,429,231	482,333	11,733
2005	394,273	829,737	268,881	6,441	589,938	210,228	5,214	1,419,675	479,108	11,655
2006	391,529	823,961	267,009	6,397	585,831	208,764	5,177	1,409,792	475,773	11,574
2007	388,702	818,012	265,081	6,350	581,602	207,257	5,140	1,399,613	472,338	11,490
2008	386,693	813,785	263,711	6,318	578,596	206,186	5,113	1,392,381	469,897	11,431
2009	385,561	811,401	262,939	6,299	576,901	205,582	5,098	1,388,302	468,521	11,397
2010	385,351	810,959	262,796	6,296	576,587	205,470	5,096	1,387,546	468,266	11,391
2011	385,870	812,051	263,150	6,304	577,364	205,747	5,102	1,389,415	468,896	11,407
2012	386,864	814,144	263,828	6,320	578,851	206,277	5,116	1,392,995	470,105	11,436
2013	388,051	816,642	264,637	6,340	580,627	206,910	5,131	1,397,269	471,547	11,471
2014	389,342	819,358	265,517	6,361	582,559	207,598	5,148	1,401,917	473,115	11,509
2015	390,699	822,216	266,443	6,383	584,590	208,322	5,166	1,406,806	474,765	11,549
2016	392,121	825,208	267,413	6,406	586,718	209,080	5,185	1,411,926	476,493	11,591
2017	393,617	828,355	268,433	6,431	588,955	209,878	5,205	1,417,310	478,310	11,636
2018	395,111	831,500	269,452	6,455	591,192	210,675	5,225	1,422,692	480,127	11,680
2019	396,685	834,811	270,525	6,481	593,546	211,513	5,246	1,428,357	482,038	11,726
2020	398,331	838,276	271,648	6,508	596,009	212,391	5,267	1,434,285	484,039	11,775
2021	400,001	841,790	272,787	6,535	598,508	213,282	5,289	1,440,298	486,068	11,824

^a All dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-11. Potential Economic Impacts of Marketing Program, a 10% Increase in Price, and No License Restrictions^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	391,241	823,356	266,813	6,392	585,401	208,611	5,174	1,408,757	475,424	11,565
2003	382,600	805,170	260,920	6,251	572,471	204,003	5,059	1,377,641	464,923	11,310
2004	415,828	875,098	283,580	6,794	622,189	221,721	5,499	1,497,287	505,301	12,292
2005	413,576	870,358	282,044	6,757	618,819	220,520	5,469	1,489,177	502,564	12,226
2006	410,870	864,664	280,199	6,713	614,771	219,077	5,433	1,479,434	499,276	12,146
2007	408,732	860,165	278,741	6,678	611,572	217,937	5,405	1,471,737	496,678	12,082
2008	407,446	857,459	277,864	6,657	609,648	217,251	5,388	1,467,106	495,115	12,044
2009	407,077	856,681	277,612	6,651	609,095	217,054	5,383	1,465,776	494,666	12,034
2010	407,468	857,505	277,879	6,657	609,681	217,263	5,388	1,467,187	495,143	12,045
2011	408,373	859,410	278,496	6,672	611,035	217,746	5,400	1,470,445	496,242	12,072
2012	409,511	861,805	279,272	6,690	612,738	218,353	5,415	1,474,542	497,625	12,105
2013	410,731	864,371	280,104	6,710	614,562	219,003	5,431	1,478,933	499,107	12,142
2014	412,000	867,043	280,970	6,731	616,462	219,680	5,448	1,483,505	500,649	12,179
2015	413,329	869,839	281,876	6,753	618,451	220,388	5,466	1,488,290	502,264	12,218
2016	414,759	872,847	282,851	6,776	620,589	221,150	5,485	1,493,436	504,001	12,261
2017	416,238	875,960	283,860	6,800	622,802	221,939	5,504	1,498,763	505,799	12,304
2018	417,783	879,211	284,913	6,825	625,114	222,763	5,524	1,504,325	507,676	12,350
2019	419,322	882,452	285,963	6,851	627,418	223,584	5,545	1,509,870	509,547	12,396
2020	420,906	885,785	287,043	6,877	629,788	224,428	5,566	1,515,572	511,472	12,442
2021	422,465	889,066	288,106	6,902	632,120	225,260	5,586	1,521,186	513,366	12,488

^a All dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-12. Potential Economic Impacts of Marketing Program, a 15% Increase in Price, and No License Restrictions^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
		Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
	2003 Constant Dollar Value									
2002	391,241	823,356	266,813	6,392	585,401	208,611	5,174	1,408,757	475,424	11,565
2003	382,600	805,170	260,920	6,251	572,471	204,003	5,059	1,377,641	464,923	11,310
2004	434,730	914,877	296,471	7,102	650,472	231,799	5,749	1,565,349	528,270	12,851
2005	432,935	911,099	295,246	7,073	647,786	230,842	5,725	1,558,884	526,088	12,798
2006	431,308	907,676	294,137	7,046	645,352	229,975	5,703	1,553,028	524,112	12,750
2007	430,084	905,099	293,302	7,026	643,520	229,322	5,687	1,548,619	522,624	12,714
2008	429,816	904,535	293,119	7,022	643,119	229,179	5,684	1,547,654	522,299	12,706
2009	430,219	905,384	293,395	7,029	643,723	229,394	5,689	1,549,107	522,789	12,718
2010	431,079	907,194	293,981	7,043	645,009	229,853	5,700	1,552,203	523,834	12,743
2011	432,133	909,412	294,700	7,060	646,587	230,415	5,714	1,555,999	525,115	12,774
2012	433,286	911,838	295,486	7,079	648,311	231,029	5,730	1,560,149	526,515	12,808
2013	434,475	914,340	296,297	7,098	650,090	231,663	5,745	1,564,431	527,960	12,843
2014	435,790	917,108	297,193	7,120	652,058	232,365	5,763	1,569,165	529,558	12,882
2015	437,126	919,919	298,105	7,142	654,057	233,077	5,780	1,573,975	531,181	12,922
2016	438,555	922,927	299,079	7,165	656,195	233,839	5,799	1,579,122	532,918	12,964
2017	440,010	925,988	300,071	7,189	658,372	234,615	5,818	1,584,360	534,686	13,007
2018	441,536	929,199	301,112	7,214	660,655	235,428	5,839	1,589,854	536,540	13,052
2019	443,038	932,360	302,136	7,238	662,902	236,229	5,858	1,595,262	538,365	13,097
2020	444,467	935,368	303,111	7,261	665,041	236,991	5,877	1,600,408	540,102	13,139
2021	445,931	938,449	304,109	7,285	667,232	237,772	5,897	1,605,681	541,881	13,182

^a All dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-13. Potential Economic Impacts of Marketing Program, a 20% Increase in Price, and No License Restrictions^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	391,241	823,356	266,813	6,392	585,401	208,611	5,174	1,408,757	475,424	11,565
2003	382,600	805,170	260,920	6,251	572,471	204,003	5,059	1,377,641	464,923	11,310
2004	453,632	954,655	309,361	7,411	678,754	241,878	5,999	1,633,409	551,239	13,410
2005	452,410	952,083	308,527	7,391	676,925	241,226	5,982	1,629,008	549,754	13,374
2006	452,260	951,767	308,425	7,389	676,701	241,146	5,980	1,628,467	549,571	13,369
2007	452,643	952,575	308,687	7,395	677,275	241,351	5,985	1,629,849	550,037	13,381
2008	453,528	954,437	309,290	7,409	678,599	241,823	5,997	1,633,036	551,113	13,407
2009	454,480	956,440	309,939	7,425	680,023	242,330	6,010	1,636,463	552,270	13,435
2010	455,415	958,407	310,577	7,440	681,422	242,829	6,022	1,639,829	553,405	13,462
2011	456,392	960,463	311,243	7,456	682,883	243,349	6,035	1,643,346	554,592	13,491
2012	457,422	962,631	311,946	7,473	684,425	243,899	6,049	1,647,057	555,845	13,522
2013	458,534	964,971	312,704	7,491	686,088	244,491	6,063	1,651,059	557,195	13,555
2014	459,704	967,433	313,502	7,510	687,839	245,115	6,079	1,655,272	558,617	13,589
2015	460,955	970,066	314,355	7,531	689,711	245,782	6,095	1,659,777	560,137	13,626
2016	462,277	972,848	315,257	7,552	691,689	246,487	6,113	1,664,538	561,744	13,665
2017	463,655	975,748	316,196	7,575	693,751	247,222	6,131	1,669,499	563,418	13,706
2018	465,069	978,723	317,160	7,598	695,866	247,976	6,150	1,674,589	565,136	13,748
2019	466,549	981,839	318,170	7,622	698,081	248,765	6,169	1,679,920	566,935	13,792
2020	468,080	985,062	319,214	7,647	700,373	249,582	6,190	1,685,435	568,796	13,837
2021	469,465	987,976	320,159	7,670	702,445	250,320	6,208	1,690,421	570,479	13,878

^aAll dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-14. Potential Economic Impacts of Marketing Program, a 5% Increase in Price, and License Restrictions^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	391,241	823,356	266,813	6,392	585,401	208,611	5,174	1,408,757	475,424	11,565
2003	382,600	805,170	260,920	6,251	572,471	204,003	5,059	1,377,641	464,923	11,310
2004	396,927	835,322	270,690	6,485	593,909	211,643	5,249	1,429,231	482,333	11,733
2005	393,640	828,405	268,449	6,431	588,991	209,890	5,205	1,417,396	478,339	11,636
2006	389,745	820,207	265,793	6,367	583,162	207,813	5,154	1,403,370	473,606	11,521
2007	385,687	811,668	263,025	6,301	577,091	205,650	5,100	1,388,759	468,675	11,401
2008	382,281	804,500	260,702	6,246	571,995	203,834	5,055	1,376,495	464,536	11,301
2009	379,777	799,230	258,995	6,205	568,248	202,498	5,022	1,367,477	461,493	11,227
2010	378,277	796,072	257,971	6,180	566,002	201,698	5,002	1,362,074	459,670	11,182
2011	377,481	794,398	257,429	6,167	564,812	201,274	4,992	1,359,211	458,703	11,159
2012	376,740	792,837	256,923	6,155	563,703	200,879	4,982	1,356,540	457,802	11,137
2013	376,157	791,611	256,526	6,145	562,831	200,568	4,974	1,354,442	457,094	11,120
2014	375,711	790,672	256,222	6,138	562,163	200,330	4,968	1,352,836	456,552	11,106
2015	375,269	789,743	255,920	6,131	561,502	200,095	4,962	1,351,245	456,015	11,093
2016	374,869	788,902	255,648	6,124	560,904	199,882	4,957	1,349,806	455,529	11,081
2017	374,523	788,173	255,412	6,119	560,387	199,697	4,952	1,348,560	455,109	11,071
2018	374,213	787,521	255,200	6,114	559,923	199,532	4,948	1,347,444	454,732	11,062
2019	373,940	786,947	255,014	6,109	559,514	199,386	4,945	1,346,461	454,400	11,054
2020	373,694	786,427	254,846	6,105	559,145	199,255	4,941	1,345,572	454,100	11,047
2021	373,474	785,964	254,696	6,102	558,816	199,137	4,939	1,344,780	453,833	11,040

^aAll dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-15. Potential Economic Impacts of Marketing Program, a 10% Increase in Price, and License Restrictions^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	391,241	823,356	266,813	6,392	585,401	208,611	5,174	1,408,757	475,424	11,565
2003	382,600	805,170	260,920	6,251	572,471	204,003	5,059	1,377,641	464,923	11,310
2004	415,828	875,098	283,580	6,794	622,189	221,721	5,499	1,497,287	505,301	12,292
2005	412,621	868,349	281,393	6,741	617,391	220,011	5,456	1,485,740	501,404	12,197
2006	408,684	860,064	278,708	6,677	611,501	217,912	5,404	1,471,565	496,620	12,081
2007	405,120	852,562	276,277	6,619	606,167	216,011	5,357	1,458,729	492,288	11,976
2008	402,466	846,977	274,467	6,575	602,196	214,596	5,322	1,449,173	489,063	11,897
2009	400,808	843,489	273,337	6,548	599,715	213,712	5,300	1,443,204	487,049	11,848
2010	399,996	841,781	272,783	6,535	598,501	213,279	5,289	1,440,282	486,063	11,824
2011	399,282	840,278	272,296	6,523	597,432	212,898	5,280	1,437,710	485,195	11,803
2012	398,690	839,032	271,893	6,514	596,547	212,583	5,272	1,435,579	484,476	11,786
2013	398,213	838,027	271,567	6,506	595,832	212,328	5,266	1,433,859	483,895	11,771
2014	397,808	837,175	271,291	6,499	595,226	212,112	5,260	1,432,401	483,403	11,760
2015	397,425	836,370	271,030	6,493	594,654	211,908	5,255	1,431,023	482,938	11,748
2016	397,084	835,651	270,797	6,487	594,143	211,726	5,251	1,429,794	482,523	11,738
2017	396,783	835,019	270,592	6,482	593,693	211,566	5,247	1,428,712	482,158	11,729
2018	396,514	834,453	270,409	6,478	593,291	211,423	5,243	1,427,744	481,832	11,721
2019	396,273	833,946	270,244	6,474	592,930	211,294	5,240	1,426,876	481,538	11,714
2020	396,060	833,496	270,099	6,471	592,611	211,180	5,237	1,426,107	481,279	11,708
2021	395,876	833,110	269,974	6,468	592,336	211,082	5,235	1,425,446	481,056	11,702

^a All dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-16. Potential Economic Impacts of Marketing Program, a 15% Increase in Price, and License Restrictions^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	391,241	823,356	266,813	6,392	585,401	208,611	5,174	1,408,757	475,424	11,565
2003	382,600	805,170	260,920	6,251	572,471	204,003	5,059	1,377,641	464,923	11,310
2004	434,730	914,877	296,471	7,102	650,472	231,799	5,749	1,565,349	528,270	12,851
2005	431,766	908,638	294,449	7,054	646,036	230,219	5,709	1,554,674	524,668	12,763
2006	428,651	902,084	292,325	7,003	641,376	228,558	5,668	1,543,460	520,883	12,671
2007	426,019	896,545	290,530	6,960	637,438	227,155	5,633	1,533,984	517,685	12,593
2008	424,408	893,154	289,431	6,934	635,027	226,296	5,612	1,528,181	515,727	12,546
2009	423,616	891,488	288,891	6,921	633,843	225,873	5,602	1,525,331	514,765	12,522
2010	422,999	890,190	288,471	6,911	632,920	225,545	5,593	1,523,109	514,015	12,504
2011	422,436	889,003	288,086	6,902	632,076	225,244	5,586	1,521,079	513,330	12,488
2012	421,969	888,021	287,768	6,894	631,378	224,995	5,580	1,519,399	512,763	12,474
2013	421,565	887,172	287,493	6,887	630,774	224,780	5,575	1,517,946	512,273	12,462
2014	421,194	886,391	287,240	6,881	630,218	224,582	5,570	1,516,609	511,821	12,451
2015	420,854	885,675	287,008	6,876	629,710	224,401	5,565	1,515,385	511,408	12,441
2016	420,551	885,037	286,801	6,871	629,256	224,239	5,561	1,514,292	511,040	12,432
2017	420,278	884,464	286,615	6,866	628,848	224,094	5,557	1,513,312	510,709	12,424
2018	420,035	883,952	286,449	6,862	628,484	223,964	5,554	1,512,436	510,413	12,417
2019	419,821	883,501	286,303	6,859	628,164	223,850	5,551	1,511,664	510,153	12,410
2020	419,638	883,115	286,178	6,856	627,890	223,752	5,549	1,511,005	509,930	12,405
2021	419,478	882,780	286,070	6,853	627,651	223,667	5,547	1,510,431	509,737	12,400

^a All dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.

Table 6-17. Potential Economic Impacts of Marketing Program, a 20% Increase in Price, and License Restrictions^a

Year	Ex-vessel Revenue	Harvesting Sector			Processing Sector			Total		
	2003 Constant Dollar Value	Sales	Income	Employment	Sales	Income	Employment	Sales	Income	Employment
2002	391,241	823,356	266,813	6,392	585,401	208,611	5,174	1,408,757	475,424	11,565
2003	382,600	805,170	260,920	6,251	572,471	204,003	5,059	1,377,641	464,923	11,310
2004	453,632	954,655	309,361	7,411	678,754	241,878	5,999	1,633,409	551,239	13,410
2005	451,077	949,278	307,618	7,369	674,931	240,515	5,965	1,624,209	548,134	13,334
2006	449,224	945,379	306,355	7,339	672,159	239,528	5,940	1,617,538	545,883	13,279
2007	448,011	942,827	305,528	7,319	670,344	238,881	5,924	1,613,171	544,409	13,244
2008	447,533	941,820	305,202	7,312	669,629	238,626	5,918	1,611,449	543,828	13,229
2009	446,939	940,571	304,797	7,302	668,740	238,309	5,910	1,609,311	543,106	13,212
2010	446,415	939,468	304,440	7,293	667,956	238,030	5,903	1,607,425	542,470	13,196
2011	445,951	938,491	304,123	7,286	667,261	237,782	5,897	1,605,752	541,905	13,183
2012	445,570	937,690	303,863	7,279	666,692	237,579	5,892	1,604,382	541,443	13,171
2013	445,217	936,946	303,622	7,274	666,163	237,391	5,887	1,603,110	541,014	13,161
2014	444,894	936,266	303,402	7,268	665,679	237,219	5,883	1,601,945	540,620	13,151
2015	444,604	935,656	303,204	7,264	665,246	237,064	5,879	1,600,901	540,268	13,143
2016	444,344	935,110	303,027	7,259	664,857	236,926	5,876	1,599,967	539,953	13,135
2017	444,118	934,633	302,873	7,256	664,518	236,805	5,873	1,599,151	539,678	13,128
2018	443,924	934,224	302,740	7,253	664,228	236,701	5,870	1,598,452	539,442	13,123
2019	443,752	933,862	302,623	7,250	663,970	236,610	5,868	1,597,832	539,233	13,118
2020	443,600	933,543	302,520	7,247	663,744	236,529	5,866	1,597,287	539,048	13,113
2021	443,466	933,262	302,428	7,245	663,544	236,458	5,864	1,596,806	538,886	13,109

^a All dollar values are reported in terms of year 2003 constant dollar values; deflation or conversion to constant dollar values is based on the gross domestic product implicit price deflator; baseline projections are based on 2002 ex-vessel price levels.